KSC LAUNCH OPERATIONS DIRECTIVE NO. 11A

To: Distribution From: H. J. Kapryan
Director of Launch Operations

Subject: EMERGENCY CONTROL AND COMMUNICATION PROCEDURE - LC 39

1.1 PURPOSE

This directive defines the emergency control procedure to be implemented whenever an emergency situation develops at Launch Complex 39.

2.1 SCOPE

Rules are given to supplement existing procedures and to clearly define the course of action to be taken by all individuals involved in an emergency situation which could impact an operational system. Methods of implementation are outlined.

3.1 RESPONSIBILITIES

3.1.1 It is the responsibility of every individual employed on the Skylab or ASTP Programs to immediately report an emergency or potential emergency condition that could cause personnel injury or damage to equipment and to take whatever steps are required to avert such danger.

3.1.2 In any emergency, the Test Supervisor shall be in complete charge of directing operations. In his absence, this charge shall fall in turn to the Launch Vehicle Test Conductor, the Spacecraft Test Conductor, and the Test Support Controller.

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4.1 INSTRUCTIONS

4.1.1 REPORTING OF AN EMERGENCY

a. If you are using the OIS system, contact the Test Supervisor (CVTS) on the "Test Supervisor" channel 181 (171 for Skylab 1) or the Launch Vehicle Test Conductor on the "CLTC" channel 261 (161 for Skylab 1). He will have point-to-point contact with fire, medical, safety, security and the Test Support Duty Officer.

b. If you are not using the OIS system, dial the Test Supervisor on the nearest telephone (7-5753).

c. If there is no answer on either OIS or the above listed number, then call the following emergency numbers, as appropriate:

Fire	117
Medical	7-2222
Security	7-2121

d. When you report an emergency, STATE:

Your name
Nature of Emergency
Location of Emergency
Personnel Injuries
Description of Situation
Action Already Taken

4.1.2 EMERGENCY PAD EVACUATION

a. In the event of an uncontrollable impending hazard, the pad will be evacuated. The evacuation signal will be a long warbling blast on the warning sound system.

b. The Test Supervisor, Launch Vehicle Test Conductor, or Spacecraft Test Conductor shall have the authority to have the evacuation signal sounded and it shall be repeated in conjunction with desirable verbal instructions as often as is deemed necessary by the initiator.

c. All personnel, on hearing the evacuation signal, shall immediately evacuate the Mobile Service Structure, the Mobile Launcher, the Space Vehicle and all areas within the pad perimeter in accordance with evacuation routes. Only persons expressly requested to remain shall do so. Elevators will not be used during an emergency evacuation.

d. All evacuating personnel shall make themselves available to communications from the Firing Room as soon as it is possible, as status updating may indicate that selective reentry into the danger area is required.

4.1.3 THE TEST SUPERVISOR

The Test Supervisor shall maintain complete control of an emergency situation and all personnel involved in it. To accomplish this, the following items should be performed:

a. Clear immediate danger area of all unnecessary personnel and instruct pad safety and security to secure the area within which the emergency has occurred. Activate evacuation signal if total evacuation is required.

b. Notify the appropriate emergency agencies via point-to-point phone.

c. Establish emergency communications on the Test Supervisor's OIS channel between all Vehicle Test Conductors including the Test Support Controller and alert them to the nature of the emergency. Direct them to perform securing required to keep the situation from compounding and to maintain constant availability over OIS.

d. Establish communications with the commanders of the emergency agencies at the scene of the emergency (HF NET 105, OIS or black phone).

e. Delegate responsibility for implementation of desired emergency action to available/qualified personnel. e.g. (direct Launch Vehicle Test Conductor/Spacecraft Test Conductor/Test Support Controller to secure launch vehicle/spacecraft/ground systems in accordance with their emergency procedures and begin accounting for all their personnel).

f. Coordinate vehicle and GSE status with emergency information. Clear emergency personnel into secured area as dictated by overall status.

g. Evaluate incoming status reports to determine overall progress of emergency control operations. Maintain strict communications discipline to ensure only essential status reports are over emergency nets.

h. Notify management and damage assessment personnel as soon as the immediate situation is under control.

i. Determine when an emergency area has been cleared of all personnel and grant permission to re-enter the area and/or relieve security from maintenance of secured area.

4.1.4 THE LAUNCH VEHICLE TEST CONDUCTOR, SPACECRAFT TEST CONDUCTOR, AND TEST SUPPORT CONTROLLER

In the following order, the Launch Vehicle Test Conductor, Spacecraft Test Conductor and Test Support Controller are delegated the responsibilities and duties of the Test Supervisor in his absence. In addition, they will perform those duties delegated to them by the Test Supervisor at the time of the emergency. These duties will normally include:

a. Direction and monitoring of securing required to keep situation from compounding.

b. Securing of vehicle and GSE systems to static condition when desirable.

c. Maintaining updated status of vehicle and GSE conditions and personnel.

d. Direction of secondary emergency activities whenever the Test Supervisor is occupied with primary problems.

e. Updating the Test Supervisor on the status of the vehicle and GSE systems.

f. Maintaining strict communications discipline to ensure only essential status reports and directions are over emergency nets.

g. Advise Test Supervisor of actions taken and/or recommended. Ensure as far as possible that activities do not conflict with other procedures in progress. Inform the Test Supervisor of any possible conflict.

h. Establish peripheral communications and maintain control over their personnel in accordance with the requirements of the Test Supervisor.

i. Record significant aspects of the emergency and log actions taken in support of the operation.

j. In addition, the Test Support Controller will maintain his present responsibility for handling routine emergency calls that do not affect the integrated system. In the event that information concerning an emergency is received by phone which impacts the integrated system but which might not be known by the Test Supervisor, the Test Support Controller shall so notify the Test Supervisor.

4.1.5 STAGE/MODULE TEST CONDUCTORS

In the event of an emergency directly involving contractor Test Conductor's area of responsibility, he shall (for his own area of responsibility):

a. Initiate securing procedures required to protect personnel and equipment.

b. Notify Launch Vehicle/Spacecraft Test Conductor on his assigned OIS Channel of emergency and activities in progress; the Launch Vehicle/Spacecraft Test Conductor will immediately notify the Test Supervisor.

c. Arrange for immediate evacuation of area through the Test Supervisor or Test Conductor in the event of an uncontrollable impending hazard.

d. Monitor the Test Supervisor's OIS Channel and maintain continuous communications availability with Test Supervisor, advise Test Supervisor of emergency services desired and status of immediate reaction activities.

e. Monitor his stage/module peculiar functions which might be impacted by emergency and notify the Test Supervisor of any out of tolerance condition which might compound the emergency. Recommend recovery or recycle steps when situation warrants.

f. Contact his stage/module monitors/pad leaders and initiate action to ensure complete control and accountability for his personnel. Personnel safety actions shall be the responsibility of the Stage/Module Test Conductor; however, this responsibility shall in no way conflict with the overall requirements levied by the Test Supervisor.

g. Provide instructions or support for emergency agency personnel as needed.

h. Initiate notification of his contractor management as required.

i. Maintain a log of his stage/module activities during the emergency.

In the event of an emergency situation occurring outside of a Test Conductor's area of responsibility, he shall (for his own area of responsibility):

a. Maintain continuous communications availability on the Test Supervisor's OIS channel.

b. Control his contractor personnel so that orderly and timely emergency procedures may be implemented and so that personnel may be accounted for.

c. Monitor his stage/module peculiar functions that might be impacted by the emergency and notify the Test Supervisor of any out-of-tolerence condition which could compound the emergency. Recommend recovery or recycle steps when situation warrants. In the event of an uncontrollable, impending hazard, arrange for immediate evacuation of the area through the Test Supervisor.

d. Maintain a log of all his stage/module activities during the emergency.

4.1.6 FIRE-SECURITY-MEDICAL-SAFETY-ENVIRONMENTAL HEALTH

a. Fire, Security and Medical shall be available on a 24-hour per day basis, via point-to-point telephone contact. In addition, Safety and Environmental Health will be available depending upon the activity/status at Complex 39.

b. Security and Safety shall establish a secured area surrounding the boundaries of the area in which an emergency has occurred if so directed by the Test Supervisor. No additional contractor or emergency agency personnel shall enter the secured area until they have obtained clearance from the Test Supervisor and are briefed on current emergency status. Communication is mandatory on the Test Supervisor's OIS Channel, HF 105 Net or black phone.

c. The commanders of the responding emergency agencies shall establish and maintain a communcations channel with the Test Supervisor at their arrival at the secured area. This is mandatory to ensure two-way emergency status exchange and to convey vehicle or GSE oriented information to personnel not intimately familiar with it or to request specialized aid.

d. After taking whatever action is advisable to curtail immediate danger to personnel or damage to equipment, the agency commander shall transmit recommendations and observations to the Test Supervisor.

e. In the event that manual safeing of vehicle or ground systems is deemed advisable by the Test Supervisor, all emergency agencies will act in a support capacity to contractor personnel assigned to prevent the situation from compounding.

f. Pad Safety shall coordinate with the Test Supervisor to maintain the numbers of personnel in the emergency area to a safe level. He will also ensure that personnel operate within a reasonable envelope of safety commensurate with the nature of the emergency.

5.1 METHODS OF IMPLEMENTING THIS DIRECTIVE

5.1.1 The Directors of Launch Vehicle Operations and Spacecraft Operations are responsible for ensuring that adequate training of all elements of their organization and their associated contractors who participate actively in their test and launch operations is carried out. To ensure that such training is implemented and sufficient, unscheduled emergency drills will be conducted and monitored.

5.1.2 Safety and Security campaigns are to be initiated by KSC and contractor personnel to ensure that every individual employed at KSC is aware of the steps to be taken in an emergency situation.

End of Directive